

# A drought for the ages

By Patrick O'Driscoll, USA TODAY

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DENVER — Drought, a fixture in much of the West for nearly a decade, now covers more than one-third of the continental USA. And it's spreading.

As summer starts, half the nation is either abnormally dry or in outright drought from prolonged lack of rain that could lead to water shortages, according to the U.S. Drought Monitor, a weekly index of conditions. Welcome rainfall last weekend from Tropical Storm Barry brought short-term relief to parts of the fire-scorched Southeast. But up to 50 inches of rain is needed to end the drought there, and this is the driest spring in the Southeast since record-keeping began in 1895, according to the National Climatic Data Center.

California and Nevada just recorded their driest June-to-May period since 1924, and a lack of rain in the West could make this an especially risky summer for wildfires.

Coast to coast, the drought's effects are as varied as the landscapes:

- In central California, ranchers are selling cattle or trucking them out of state as grazing grass dries up. In Southern California's Antelope Valley, rainfall at just 15% of normal erased the spring bloom of California poppies.
- In South Florida, Lake Okeechobee, America's second-largest body of fresh water, fell last week to a record low — an average 8.89feet above sea level. So much lake bed is dry that 12,000 acres of it caught fire last month. Saltwater intrusion threatens to contaminate municipal wells for Atlantic coastal towns as fresh groundwater levels drop.
- In Alabama, shallow ponds on commercial catfish farms are dwindling, and more than half the corn and wheat crops are in poor condition.

Dry episodes have become so persistent in the West that some scientists and water managers say drought is the "new normal" there. Reinforcing that notion are global-warming projections warning of more and deeper dry spells in the Southwest, although a report in last week's Science magazine challenges the climate models and suggests there will be more rainfall worldwide later this century.

"It seems extremely likely that drought will become more the norm" for the West, says Kathy Jacobs of the Arizona Water Institute, a research partnership of the state's three universities.

"Droughts will continue to come and go, but ... higher temperatures are going to produce more

water stress." That's because warmer temperatures in the Southwest boosts demands for water and cause more to evaporate from lakes and reservoirs.

"The only good news about drought is it forces us to pay attention to water management," says Peter Gleick of the Pacific Institute, a think tank in Oakland that stresses efficient water use.

This drought has been particularly harsh in three regions: the Southwest, the Southeast and northern Minnesota.

Severe dryness across California and Arizona has spread into 11 other Western states. On the Colorado River, the water supply for 30 million people in seven states and Mexico, the Lake Powell and Lake Mead reservoirs are only half full and unlikely to recover for years. In Los Angeles County, on track for a record dry year with 21% of normal rain downtown since last summer, fire officials are threatening to cancel Fourth of July fireworks if conditions worsen. On Wednesday, Los Angeles Mayor Antonio Villaraigosa urged residents to voluntarily cut water use 10%, the city's first such call since the 1990s.

In Minnesota, which is in its worst drought since 1976, the situation is improving slowly, although a wildfire last month burned dozens of houses and 115 square miles in the northeastern part of the state.

The Southeast, unaccustomed to prolonged dry spells, may be suffering the most. In eight states from Mississippi to the Carolinas and down through Florida, lakes are shrinking, crops are withering, well levels are falling and there are new limits on water use. "We need 40-50 inches of rainfall to get out of the drought," says Carol Ann Wehle of the South Florida Water Management District.

Despite a recent storm, water hasn't flowed in Florida's Kissimmee River, which feeds Lake Okeechobee, in 212 days. The district has imposed its strictest water-use limits ever in 13 counties, cutting home watering to once a week and commercial use by 45%.

The drought also has provided an occasional benefit: Okeechobee's record low level allowed crews to clean out decades of muck and debris.

And some stricken areas are recovering. Texas and Oklahoma, charred by wildfires in the dry winter of 2005-06, are drought-free.

Even in California, where winter snowpack in the Sierra Nevada range was only 27% of normal this year, plentiful runoff from last year's snows filled many reservoirs, so shortages are unlikely this year. But another dry winter would tax supplies.

Gleick says water managers are not reacting forcefully enough to the drought: "The time to tell people that we're in the middle of a drought and to institute strong conservation programs is

today, not a year from now." The Metropolitan Water District of Southern California is doing that. Last month, it began a "Let's Save" radio campaign.

After nearly a decade of drought in parts of the West, the nation's fastest-growing region wrestles with rising water demands and declining supply.

Donald Wilhite of the National Drought Mitigation Center says the Southwest and Southeast are "becoming gradually more vulnerable to drought" because the rising population will need more water. "We think of water as an unlimited resource," he says. "But what happens when you turn on the tap and it's not there?"

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